

Application No.: 09/980,681
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CENTRAL FAX CENTERAMENDMENTS TO THE CLAIMS

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A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1-38 (Cancelled)

39. (Currently Amended) A polymeric material ~~incorporating~~ comprising an infection resistant biguanide-containing moiety pendant to a polymer chain, wherein the biguanide-containing moiety comprises a plurality of biguanide groups and is chemically bound to the polymer chain though some but not all of the secondary amine nitrogen atoms of a ~~NH-C(NH)-NH-C(NH)-NH-~~ biguanide group ~~or groups of the infection resistant biguanide-containing moiety, such that a tertiary amino group remains in a bound biguanide residue.~~

40. (Previously Presented) A polymeric material according to claim 39 wherein the infection resistant biguanide-containing moiety is chlorhexidine or polyhexanide.

41. (Currently Amended) A medical device comprising a polymeric material incorporating an infection resistant biguanide-containing moiety pendant to a polymer chain, wherein the biguanide-containing moiety comprises a plurality of biguanide groups and is chemically bound to the polymer chain though some but not all of the secondary amine nitrogen atoms of a ~~NH-C(NH)-NH-C(NH)-NH-~~ biguanide group ~~or groups of the infection resistant biguanide-containing moiety, such that a tertiary amino group remains in a bound biguanide residue.~~

42. (Currently Amended) A medical device according to claim 41 wherein the medical device is formed from or coated with the polymeric material of claim 39, or the medical device is first formed from or coated with polymeric material which is thereafter reacted with

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an infection resistant biguanide-containing moiety such that the biguanide-containing moiety is chemically bound to the polymer chain though some but not all of the secondary amine nitrogen atoms of a ~~NH-C(NH)-NH-C(NH)-NH~~ biguanide group or groups of the infection resistant biguanide-containing moiety, wherein a tertiary amino group remains in a bound biguanide residue.

[[44]] 43. (Currently Amended) A medical device according to claim 41 formed as a contact lens or intra-ocular lens.

[[45]] 44. (Currently Amended) A method of making a polymeric material according to claim 39 which comprises reacting reactive sites on a polymeric material with some but not all of the secondary amine nitrogen atoms of a ~~NH-C(NH)-NH-C(NH)-NH~~ biguanide group or groups of an infection resistant biguanide-containing moiety, such that a tertiary amine group remains in a bound biguanide residue wherein the chemical binding is via a substituted urea linkage, or a substituted thiourea linkage, or a N,N-disubstituted amide linkage or a N,N-disubstituted hemiaminal or aminal linkage or a tertiary amine linkage.

[[46]] 45. (Currently Amended) A method according to claim [[45]] 44 which comprises the preliminary step of forming a partial free base of the biguanide-containing moiety before reacting the reactive sites with the secondary nitrogen atoms.

[[47]] 46. (Currently Amended) A method according to claim [[45]] 44 wherein the reactive sites comprise isocyanate, isothiocyanate, epoxide, acid chloride, acid anhydride, aldehyde, ketone or unsaturated sites.

[[48]] 47. (Currently Amended) A method according to claim [[45]] 44 wherein the reactive sites comprise hydroxyl, carboxyl or amino groups and the reaction with the nitrogen atoms is carried out in the presence of a carbonyl diimidazole or carbodiimide coupling agent.

[[49]] 48. (Currently Amended) A method of making an infection resistant polymeric material which comprises modifying a polymer precursor by reacting some but not all of the secondary amine nitrogen atoms of a ~~NH-C(NH)-NH-C(NH)-NH~~ biguanide group or

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groups of an infection resistant biguanide-containing moiety that comprises a plurality of biguanide groups, with reactive sites on the polymer precursor wherein the chemical binding is via a substituted urea linkage, or a substituted thiourea linkage, or a N,N-disubstituted amide linkage or a N,N-disubstituted hemiaminal or aiminal linkage or a tertiary amine linkage with reactive sites on the polymer precursor ~~such that a tertiary amine group remains in a bound biguanide residue~~, and thereafter converting the so modified polymer precursor to an infection resistant polymeric material by a method including a polymerisation step.

[[50]] 49. (Currently Amended) A method according to claim [[49]] 48 which comprises the preliminary step of forming a partial free base of the biguanide-containing moiety before reacting the reactive sites with the secondary nitrogen atoms.

[[51]] 50. (Currently Amended) A method according to claim [[49]] 48 wherein the reactive sites comprise isocyanate, isothiocyanate, epoxide, acid chloride, acid anhydride, aldehyde, ketone or unsaturated sites.

[[52]] 51. (Currently Amended) A method according to claim [[49]] 48 wherein the reactive sites comprise hydroxyl, carboxyl or amino groups and the reaction with the nitrogen atoms is carried out in the presence of a carbonyl diimidazole or carbodiimide coupling agent.

[[53]] 52. (Currently Amended) A method according to claim [[49]] 48 wherein the polymer precursor also contains acrylate, methacrylate, allyl or vinyl groups, and the polymerisation step is carried out by polymerising the modified polymer precursor through the said groups.

[[54]] 53. (Currently Amended) A method of making a polymeric material according to claim 39 which comprises modifying a non-polymeric compound by reacting some but not all of the secondary amine nitrogen atoms of a ~~NH-C(NH)-NH-C(NH)-NH-~~ biguanide group ~~or groups~~ of an infection resistant biguanide-containing moiety, with reactive sites on the non-polymeric compound and the chemical binding is via a substituted urea linkage, or a substituted thiourea linkage, or a N,N-disubstituted amide linkage or a N,N-disubstituted hemiaminal or aiminal linkage or a tertiary amine linkage ~~such that a tertiary amine group~~

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~~remains in a bound biguanide residue~~, and thereafter chemically binding the so modified compound to a polymeric material.

[[55]] 54. (Currently Amended) A method according to claim [[54]] 53 which comprises the preliminary step of forming a partial free base of the biguanide-containing moiety before reacting the reactive sites with the secondary nitrogen atoms.

[[56]] 55. (Currently Amended) A method according to claim [[54]] 53 wherein the reactive sites comprise isocyanate, isothiocyanate, epoxide, acid chloride, acid anhydride, aldehyde, ketone or unsaturated sites.

[[57]] 56. (Currently Amended) A method according to claim [[54]] 53 wherein the reactive sites comprise hydroxyl, carboxyl or amino groups and the reaction with the nitrogen atoms is carried out in the presence of a carbonyl diimidazole or carbodiimide coupling agent.

[[58]] 57. (Currently Amended) A method according to claim [[54]] 53 wherein the non-polymeric compound also contains acrylate, methacrylate, allyl or vinyl groups, and the modified compound is chemically bound to a polymeric material through the said groups.

[[59]] 58. (Currently Amended) A method according to claim [[45]] 44 wherein the resulting polymer containing biguanide groups is subsequently blended with other polymeric material to form an infection resistant polymer for use in forming an article of manufacture.

[[60]] 59. (Currently Amended) A method according to claim [[59]] 58 wherein the resulting polymer containing biguanide groups is subsequently blended with medically acceptable polymeric material to form an infection resistant medical polymer blend for use in the manufacture of a medial device.

[[61]] 60. (Currently Amended) A method according to claim [[60]] 59 wherein the resulting polymer containing biguanide groups is subsequently blended with ocularly acceptable lens material to form an infection resistant ocular polymer blend for use in the manufacture of a contact or intra-ocular lens.

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[[62]] 61. (Currently Amended) A method according to claim [[61]] 60 wherein the resulting polymer containing biguanide groups includes acrylate, methacrylate, allyl or vinyl groups and the polymer is subsequently copolymerised with ocularly acceptable lens material to form an infection resistant ocular polymer for use in the manufacture of a contact or intra-ocular lens.

[[63]] 62. (Currently Amended) A method according to claim [[45]] 44 wherein the resulting polymer containing biguanide groups is subsequently coated on to an article of manufacture to form an infection resistant coating thereon.

[[64]] 63. (Currently Amended) A method according to claim [[45]] 44 wherein the infection resistant biguanide-containing moiety is chlorhexidine or polyhexanide.

[[65]] 64. (Currently Amended) A method according to claim [[64]] 63 wherein the resulting polymer contains biguanide groups derived from both chlorhexidine and polyhexanide.

[[66]] 65. (Currently Amended) A method according to claim [[55]] 54 wherein the reactive sites comprise hydroxyl, carboxyl or amino groups and the reaction with the nitrogen atoms is carried out in the presence of a carbonyl diimidazole or carbodiimide coupling agent.

Please add the following new claims:

67. (New) A polymeric material incorporating a polyhexanide moiety pendant to a polymer chain, wherein the polyhexanide moiety is chemically bound to the polymer chain though some but not all of the secondary amine nitrogen atoms of a biguanide group of the polyhexanide moiety, and the chemical binding is via N,N-disubstituted amide linkage.

68. (New) A medical device according to claim 41 wherein the medical device is formed from or coated with the polymeric material of claim 39 or the medical device is first formed from or coated with polymeric material which is thereafter reacted with an infection resistant

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biguanide-containing moiety comprising a plurality of biguanide groups such that the biguanide-containing moiety is chemically bound to the polymer chain though some but not all of the secondary amine nitrogen atoms of a biguanide group of the infection resistant biguanide-containing moiety, and the chemical binding is via a substituted urea linkage, or a substituted thiourea linkage, or a N,N-disubstituted amide linkage or a N,N-disubstituted hemiaminal or aminal linkage or a tertiary amine linkage.